

Claims

1. A method for determining a number of colors in a digital image comprising:
receiving a digital image;
determining a total number of pixels in the digital image;
selecting a proportion of the total number of pixels as having an infrequent color;
determining a respective color for each one of a first portion of the pixels; and
analyzing the respective colors to determine whether the respective colors include greater than or equal to the selected proportion of infrequent color, and if the respective colors include greater than or equal to the selected proportion of infrequent colors then selecting a first subsequent process, and if the respective colors include less than the selected proportion of pixels having the infrequent color then selecting a second subsequent process.
2. The method of claim 1, wherein a frequent color includes a color that occurs greater than or equal to the proportion of the total number of pixels divided by a product of a selected number of frequent colors and an estimating factor.
3. The method of claim 2, wherein the estimating factor has a value of at least 1.
4. The method of claim 2, wherein the estimating factor is a function of a number of pixels included in the first portion of the pixels.
5. The method of claim 2, further comprising:
if the respective colors include greater than or equal to the selected proportion of infrequent colors then applying the first subsequent process and determining a performance factor of the first subsequent process; and

if the respective colors include less than the selected proportion of infrequent colors then applying the second subsequent process and determining the performance factor of the second subsequent process.

6. The method of claim 5, further comprising modifying the estimating factor with a function of the performance factor.
7. The method of claim 5, further comprising outputting the processed digital image, wherein the processed digital image has been processed in one of the first subsequent process and the second subsequent process.
8. The method of claim 1, wherein the infrequent color includes more than one infrequent color.
9. The method of claim 8, wherein selecting a proportion of the total number of pixels as being an infrequent color includes selecting a number of frequent colors.
10. The method of claim 1, wherein the infrequent color includes more than about sixteen infrequent colors.
11. The method of claim 1, wherein the first subsequent process includes a first compression scheme.
12. The method of claim 1, wherein the second subsequent process includes a second compression scheme.
13. The method of claim 1, wherein selecting the second subsequent process includes:

determining if a set of selected pixels is greater than or equal to a proportion of frequent color pixels, wherein if the set of selected pixels is greater than or equal to a proportion of frequent color pixels then the second subsequent process is selected; and if the set of selected pixels is less than a proportion of frequent color pixels then:

a subsequent portion of pixels are selected; and

a respective color for each one of the subsequent portion of the pixels is determined.

14. A method for determining a number of colors in a digital image comprising:
- receiving a digital image;
 - determining a total number of pixels in the digital image;
 - selecting a proportion of the total number of pixels as having one of a set of frequent colors, wherein a frequent color includes a color that occurs greater than or equal to the proportion of the total number of pixels divided by a selected number of frequent colors;
 - determining a respective color for each one of a first portion of the pixels; and
 - analyzing the respective colors to determine whether the respective colors include greater than or equal to the selected proportion of pixels having one of the frequent colors, and if the respective colors include greater than or equal to the selected proportion of pixels having one of the frequent colors then selecting a first compression scheme, and if the respective colors include less than the selected proportion of pixels having one of the frequent colors then selecting a second compression scheme.

15. A system for determining a number of colors in a digital image comprising:
- a first computer system including:
 - logic for receiving a digital image;
 - logic for determining a total number of pixels in the digital image;

logic for selecting a proportion of the total number of pixels as having a frequent color;

logic for determining a respective color for each on of a first portion of the pixels; and

logic for analyzing the respective colors to determine whether the respective colors include greater than or equal to the selected proportion of pixels having the frequent color, and if the respective colors include greater than or equal to the selected proportion of pixels having the frequent color then selecting a first subsequent process, and if the respective colors include less than the selected proportion of pixels having the frequent color then selecting a second subsequent process.

16. The system of claim 15, further comprising:

logic for applying the first subsequent process, if the respective colors include greater than or equal to the selected proportion of pixels having the frequent color, and determining a performance factor of the first subsequent process; and

logic for applying the second subsequent process, if the respective colors include less than the selected proportion of pixels having the frequent color, and determining the performance factor of the second subsequent process.

17. The system of claim 15, further comprising logic for outputting the processed digital image, wherein the processed digital image has been processed in one of the first subsequent process and the second subsequent process.

18. The system of claim 17, wherein the first computer system further includes a network interface and wherein the network interface couples the first computer system to a second computer system, and wherein the logic for outputting the processed digital image includes logic for outputting the processed digital image to the second computer system.